UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,842	07/30/2003	Hiroto Yoshikawa	43890-544	3723

7590   09/20/2007

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EXAMINER
KISS, ERIC B

ART UNIT	PAPER NUMBER
2192	

MAIL DATE	DELIVERY MODE
09/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _26 June 2007_.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-17_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-17_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _26 June 2007_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   The reply filed June 26, 2007, has been received and entered. Claims 1-17 are pending.

Response to Amendment

2.   The replacement sheets for Figures 1 and 2 appropriately address the objection to the

drawings as detailed in the previous Office action, and accordingly, this objection is <u>withdrawn</u>.

3.   The amendments to claims 4, 8, and 10 appropriately address the objection to these

claims based on informalities, and accordingly, this objection is <u>withdrawn</u>.

4.   The amendments to claim 10 appropriately address the rejection of claim 10 under 35

U.S.C. § 112, second paragraph, and accordingly, this rejection is <u>withdrawn</u>.

Response to Arguments

5.   Applicant's arguments with respect to claims 1-17 have been considered but are moot in

view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent

No. 6,009,480 (Pleso) and Srinivas Yarra, "USB OTG software frees dual-role handheld

devices," May 16, 2002, EDN, pp. 83, 84, 86, and 88 (herinafter "Yarra").

As per claim 1, *Pleso* discloses: A method of installing a software program in a host

device (see, e.g., col. 3, lines 18-31 (method for installing a peripheral device driver to a

computer system)), said software program being required for said host device to communicate

with a peripheral device (see, e.g., Abstract (a device driver which the computing system

employs to communicate with the peripheral system)), said method comprising the steps of:

coupling said host device to said peripheral device (see, e.g., col. 3, lines 18-31

(connecting a peripheral device to a computer)) utilizing a USB serial interface, said peripheral

device containing said software program stored in a memory device contained in said peripheral

device (see, e.g., col. 3, lines 18-31 (the peripheral device including . . . a first memory . . .

storing the peripheral device driver));

uploading said software program from said peripheral device to said host device over said

USB serial interface (see, e.g., col. 3, lines 5-16 (the peripheral device downloads the device

driver to the second memory . . .); col. 11, lines 55-65 (USB)); and

installing said software program in said host device (see, e.g., col. 3, lines 5-16 (the

peripheral device downloads the device driver to the second memory . . .)) thereby allowing

communication between said host device and said peripheral device (see, e.g., Abstract (a device

driver which the computing system employs to communicate with the peripheral system)).

Although *Pleso* discloses the use of a USB interface for host-peripheral communications,

Pleso is silent on the use of the USB On-The-Go (OTG) specification to define roles of host

devices and peripheral devices. However, *Yarra* teaches the OTG specification as being a

supplement to the USB standard and adding several unique advantages over the previous

standard, including the determination of host and peripheral roles (first through a cable select

mechanism and additionally through software negotiation of roles). *See, e.g., Yarra* at pp. 83-84

(The A device is the default host and the B device is the default peripheral. Through the Host

Negotiation Protocol, the host functions can be transferred to the B device). Therefore, because

the USB OTG specification, (1) was a known supplement to the standard USB specification, (2)

provides known tangible benefits over the USB specification, and (3) is being used for its

intended purpose (i.e., determining the role of host and peripheral in serial communications), it

would have been obvious to one of ordinary skill in the art at the time the invention was made to

utilize such a USB OTG specification with the system of *Pleso*.

As per claim 2, *Pleso* further discloses said software program is a driver associated with

said peripheral device which allows for communication between said host device and said

peripheral device (see, e.g., col. 3, lines 18-31 (method for installing a peripheral device driver to

a computer system)).

As per claim 3, *Pleso* further discloses said software program is an application for

executing a functional operation associated with the operation of the peripheral device (see, e.g.,

col. 3, lines 18-31 (method for installing a peripheral device driver to a computer system)).

As per claim 4, *Pleso* further discloses said host device and said peripheral device

communicate with one another utilizing the USB specification (see, e.g., col. 11, lines 55-65).

As per claim 5, *Pleso* discloses: A method of installing a software program in a host

device (see, e.g., col. 3, lines 18-31 (method for installing a peripheral device driver to a

computer system)), said software program being required for said host device to communicate

with a peripheral device (see, e.g., Abstract (a device driver which the computing system

employs to communicate with the peripheral system)), said method comprising the steps of:

coupling said host device to said peripheral device (see, e.g., col. 3, lines 18-31

(connecting a peripheral device to a computer)) utilizing a USB serial interface, said peripheral

device containing said software program stored in a memory device contained in said peripheral

device (see, e.g., col. 3, lines 18-31 (the peripheral device including . . . a first memory . . .

storing the peripheral device driver));

[determining] if said host device comprises said software program in said memory device

contained in said host device (see, e.g., Figure 8 (step 252); col. 11, lines 7-10 (determines

whether a peripheral device driver is needed)) [and if not,] uploading said software program

from said peripheral device to said host device over said USB serial interface (see, e.g., col. 3,

lines 5-16 (the peripheral device downloads the device driver to the second memory . . .); col.

11, lines 55-65 (USB));

installing said software program in said host device (see, e.g., col. 3, lines 5-16 (the

peripheral device downloads the device driver to the second memory . . .)) thereby allowing

communication between said host device and said peripheral device (see, e.g., Abstract (a device

driver which the computing system employs to communicate with the peripheral system)).

Although *Pleso* discloses the use of a USB interface for host-peripheral communications,

Pleso is silent on the use of the USB On-The-Go (OTG) specification to define roles of host

devices and peripheral devices. However, *Yarra* teaches the OTG specification as being a

supplement to the USB standard and adding several unique advantages over the previous

standard, including the determination of host and peripheral roles (first through a cable select

mechanism and additionally through software negotiation of roles). *See, e.g., Yarra* at pp. 83-84

(The A device is the default host and the B device is the default peripheral. Through the Host

Negotiation Protocol, the host functions can be transferred to the B device). Therefore, because

the USB OTG specification, (1) was a known supplement to the standard USB specification, (2)

provides known tangible benefits over the USB specification, and (3) is being used for its

intended purpose (i.e., determining the role of host and peripheral in serial communications), it

would have been obvious to one of ordinary skill in the art at the time the invention was made to

utilize such a USB OTG specification with the system of *Pleso*.

As per claim 6, *Pleso* further discloses said software program is a driver associated with

said peripheral device, which allows for communication between said host device and said

peripheral device (see, e.g., col. 3, lines 18-31 (method for installing a peripheral device driver to

a computer system)).

As per claim 7, *Pleso* further discloses said software program is an application for

executing a functional operation associated with the operation of the peripheral device (see, e.g.,

col. 3, lines 18-31 (method for installing a peripheral device driver to a computer system)).

As per claim 8, *Pleso* further discloses said host device and said peripheral device

communicate with one another utilizing the USB specification (see, e.g., col. 11, lines 55-65).

As per claim 9, *Pleso* discloses: A host device capable of communicating with any one of

a plurality of peripheral devices utilizing a USB serial interface (see, e.g., col. 3, lines 18-31

(method for installing a peripheral device driver to a computer system); col. 11, lines 55-65

(USB)), each of said plurality of peripheral devices having the software driver necessary for

communicating with a given peripheral stored in a memory device contained in said given

peripheral (see, e.g., col. 3, lines 18-31 (the peripheral device including . . . a first memory . . .

storing the peripheral device driver)), said host device comprising:

a USB interface capable of defining said host device as a master device relative to said

plurality of peripheral devices, (see, e.g., col. 3, lines 18-31 (connecting a peripheral device to a

computer); col. 11, lines 55-65 (USB));

a software driver downloader for downloading the software driver of a given one of said

plurality of peripheral devices, which is coupled to said host device via said USB serial interface

(see, e.g., col. 3, lines 5-16 (the peripheral device downloads the device driver to the second

memory . . .); col. 11, lines 55-65 (USB)), and

a software driver installer for installing said software driver downloaded from said given

one of said plurality of peripheral devices (see, e.g., col. 3, lines 5-16 (the peripheral device

downloads the device driver to the second memory . . .)) so as to allow communication between

said host device and said given one of said plurality of peripheral devices (see, e.g., Abstract (a

device driver which the computing system employs to communicate with the peripheral

system)).

Although *Pleso* discloses the use of a USB interface for host-peripheral communications,

Pleso is silent on the use of the USB On-The-Go (OTG) specification to define roles of host

devices and peripheral devices. However, *Yarra* teaches the OTG specification as being a

supplement to the USB standard and adding several unique advantages over the previous

standard, including the determination of host and peripheral roles (first through a cable select

mechanism and additionally through software negotiation of roles). *See, e.g., Yarra* at pp. 83-84

(The A device is the default host and the B device is the default peripheral. Through the Host

Negotiation Protocol, the host functions can be transferred to the B device). Therefore, because

the USB OTG specification, (1) was a known supplement to the standard USB specification, (2)

provides known tangible benefits over the USB specification, and (3) is being used for its

intended purpose (i.e., determining the role of host and peripheral in serial communications), it

would have been obvious to one of ordinary skill in the art at the time the invention was made to

utilize such a USB OTG specification with the system of *Pleso*.

As per claim 10, *Pleso* further discloses said host device and said given one of said

plurality of peripheral devices communicate with one another utilizing the USB specification

(see, e.g., col. 11, lines 55-65).

As per claim 11, *Pleso* discloses a peripheral device capable of communicating with a

host device utilizing a USB serial interface (see, e.g., col. 3, lines 18-31 (method for installing a

peripheral device driver to a computer system); col. 11, lines 55-65 (USB)), the peripheral device

comprising:

a memory device (see, e.g., col. 7, lines 49-51);

a USB interface capable of defining said peripheral device as a slave device relative to

said host device, (see, e.g., col. 3, lines 18-31 (connecting a peripheral device to a computer);

col. 11, lines 55-65 (USB));

a software driver in said memory device for communicating with said host device (see,

e.g., col. 7, lines 49-51); and

a software driver uploader for uploading the software driver to said host device (see, e.g.,

col. 3, lines 5-16 (the peripheral device downloads the device driver to the second memory . . .);

col. 11, lines 55-65 (USB)).

Although *Pleso* discloses the use of a USB interface for host-peripheral communications,

Pleso is silent on the use of the USB On-The-Go (OTG) specification to define roles of host

devices and peripheral devices. However, *Yarra* teaches the OTG specification as being a supplement to the USB standard and adding several unique advantages over the previous standard, including the determination of host and peripheral roles (first through a cable select mechanism and additionally through software negotiation of roles). *See, e.g., Yarra* at pp. 83-84 (The A device is the default host and the B device is the default peripheral. Through the Host Negotiation Protocol, the host functions can be transferred to the B device). Therefore, because the USB OTG specification, (1) was a known supplement to the standard USB specification, (2) provides known tangible benefits over the USB specification, and (3) is being used for its intended purpose (i.e., determining the role of host and peripheral in serial communications), it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize such a USB OTG specification with the system of *Pleso*.

Regarding claims 12-17, in addition to the disclosure and teachings applied above to claims 1 and 5, the device enumeration (claims 12 and 15) and device type and driver determination (claims 13, 14, 16, and 17) are part of the standard USB and USB OTG standards discussed above. *See, e.g., Pleso* at col. 12, lines 53-66; *Yarra* at pp. 84-85 (USB driver enumerates the connected USB devices and maintains their information and host-class drivers) and Fig 4(a) (illustrating the data transfer sequence between devices, including enumeration and getting a device descriptor). Therefore, for reasons stated above, such claims also would have been obvious.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional cited references either further describe features of the USB OTG

specification or give additional examples of devices that contain and transfer their own device drivers.

9.　　Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10.　　Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric B. Kiss whose telephone number is (571) 272-3699. The Examiner can normally be reached on Tue. - Fri., 7:00 am - 4:30 pm. The Examiner can also be reached on alternate Mondays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tuan Dam, can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

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like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature should be directed to the TC 2100 Group receptionist:

571-272-2100.

Eric B. Kiss
September 17, 2007